Bat scoping survey

33 – 36a New Park Street, Devizes
Wiltshire SN10 1DZ,

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1. Introduction

1.1 Background to these surveys

Gareth Harris (of Gareth Harris Ecology & Conservation) was commissioned to undertake a preliminary Ecological Assessment of the roof void above 33 – 36a New Park Street Devizes, Wiltshire, SN10 1DZ. This relates to proposals to refurbish the roof above this listed building.

The client requested a preliminary bat assessment of the building – an assessment for nesting birds was also made.

1.2 Development proposals

This report has been prepared to support future works at this location, to repair and refurbish the eastern pitch of the roof (including replacement of roof timbers, re-felting etc) and more limited works to the western pitch including replacing the existing guttering (like for like), investigating why a few of the tiles have lifted and repairing, and minor re-pointing of brickwork on both chimneys.

If works additional to this are proposed, additional bat assessment may be required.

1.3 Legal background

All species of bat are listed on Schedule 2 of the Conservation of Habitats and Species Regulations (2017) and Schedule 5 of the Wildlife and Countryside Act (1981) (as amended). Legal offences associated with bats include inter alia:

i. Deliberate capture, injury or killing of animals;
ii. Deliberately disturb animals in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
iii. Intentional or reckless disturbance of an animal in its place of shelter or protection;
iv. Damaging or destroying a resting place or breeding site; and
v. Intentionally or recklessly obstructing access to a place of shelter or protection.

Wild birds are protected under Section 1 of the Wildlife and Countryside Act (1981) (as amended). It is illegal to intentionally:

i. Kill, injure or take any wild bird;
ii. Take, damage or destroy the nest of a wild bird whilst that nest is in use or being built; and
iii. Take or destroy the egg of a wild bird.

Furthermore, there are additional penalties for intentionally or recklessly disturbing a species listed on Schedule 1 of the same Act, including while it is building a nest or is in, on or near a nest containing eggs or young or intentionally or recklessly disturbing the dependent young of such a species. Schedule 1 birds include species such as Barn owl. No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g., public health, public safety, air safety.

A number of wild plants and animals (including some species of bat and bird) are also included within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (UK Government, 2006) which lists flora, fauna and habitats considered by the Secretary of State to be of principal importance for conserving biodiversity. The publication of the "England Biodiversity List" satisfies the requirements of Section 41 of the NERC Act 2006 for the conservation of biodiversity. Section 40 of the NERC Act 2006 requires public bodies, including local planning authorities, to have regard for the conservation of biodiversity in England, when carrying out their normal functions. Bat species such as lesser horseshoe and Barbastelle bat, as well as hazel dormouse, are included on the section 41 list.

1.4 Location & context

33 – 36a New Park Street, Devizes is located in central Devizes adjacent to the busy A361 New Park Street, located 100m north of the market place, and 100m south of the Kennet & Avon Canal.

Devizes is known to support a diverse assemblage of bat species, ranging from Annex II species such as Greater horseshoe, Lesser horseshoe, Barbastelle & Bechstein's bat, to common & widespread species such as pipistrelle bats, Brown long-eared bat, Noctule, Serotine and Daubenton's bat. Many of the older buildings in the centre of Devizes are suitable for roosting bats, and roosting sites of species such as Greater horseshoe, Brown long-eared bat, Whiskered bat and pipistrelle bat are known or suspected in the centre of town.

The proximity of 33 – 36a New Park Street to the Kennet & Avon Canal offers nearby foraging areas and access to an important commuting route through town and out to the wider countryside.

2. Methodology

2.1 Desk study

Bat records held by Wiltshire Bat Group were assessed during a desk study. Records of bats in the wider area and records of roosting bats within 500m of the address were assessed.

2.2 Site visit

The survey entailed a detailed survey of 33 – 36a New Park Street, SN10 1DZ, conducted on the 22nd February 2023 by Gareth Harris BSc MSc MCIEEM, an experienced bat ecologist (Class Licence registration number: 2015-11684-CLS-CLS for CL19 & CL20, Class 3 & 4 respectively). The survey followed the professional survey guidance as detailed in Bat Survey Guidelines for Professional Ecologists: Good Practice Guidelines (Bat Conservation Trust, 2016).

The survey work was risk assessed in accordance with the CIEEM Advice Note (24th March 2020): Advice on COVID-19 and Undertaking Site-Based Ecological Work. The survey work was subsequently undertaken with minimal and manageable risk given implementation of mitigation measures in line with government guidance.

The survey comprised a direct search for evidence of bats on both internal and external features. The building inspection was carried out from the ground, using a ladder where necessary. Other supporting equipment included close focusing binoculars, an endoscope and a torch, as required.

The presence of roosting bats can be spotted through signs such as accumulations of moth or butterfly wings or bat droppings and urine/oil staining and/or scratch marks around potential entrance and exit points. However, the absence of droppings/evidence cannot be treated as conclusive evidence of absence and that bats are not present, and therefore an assessment was made of the potential of the building to support bats based on the criteria detailed in Table 1.

During the survey, evidence of nesting birds was also recorded if observed, including presence of nests, but also presence and behaviour of different bird species. The potential of each building to support nesting bird species was also recorded, particularly for species of conservation concern typically associated with buildings such as barn owl, house sparrow, starling, swallow and house martin.

This information was assessed against Table 2.2.

Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. (From Collins, J. (Ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn) The Bat Conservation Trust, London.		
Suitability	**Description** **Roosting habitats**	**Commuting and foraging habitats**
Negligible	Negligible habitat features on site likely site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do provide enough space, shelter, protection, appropriate conditions[1] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e., unlikely to be suitable for maternity or hibernation[2]). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.[3]	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e., not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitats that could be used by small numbers of foraging bats such as lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[1] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence in confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions [1] and surrounding habitat.	Continuous, high-quality habitat that is well connected to wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Table 2.2 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape.

[1] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[2] Evidence from the Netherlands shows mass swarming events of Common Pipistrelle in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al 2015). This phenomenon requires some research in UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
[3] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015)

The survey took into account standard guidance provided by the Collins (2016[4]), English Nature (2004[5]) and Joint Nature Conservation Committee (2004[6]).

The suitability of the wider landscape for bats was also assessed, including the connectivity of habitats immediately adjoining the site.

In addition to finding the animals themselves, the presence of roosting bats can be determined from the presence of signs such as accumulations of moth or butterfly wings or bat droppings and staining and/ or scratch marks around potential entrance and exit points. However, the absence of droppings / evidence cannot be treated as conclusive evidence that bats are not present, and therefore an assessment was made of the potential of the building to support bats based on the following scale:

Confirmed Roost	A feature / structure within which bats are seen to be present (either live bats, or bat carcasses) will be classified as a confirmed roost. However, if sufficient signs of bats are found a roost can confirmed without seeing a bat. For example, large amounts of bat droppings or feedings remains within a feature or roof space will usually be considered enough to confirm that a roost is present.
High Roosting Potential	A feature / structure which, due to its size, depth, shape, orientation or other physical properties (such as ability to maintain a constant temperature, accessibility for bats) is considered to be ideal for use by bats. Signs of bats such as droppings, feeding remains, urine staining or scratch marks within or around the feature are likely to indicate presence of a bat occupation and therefore suggest high potential that a roost is present. In the absence of such signs, assigning a feature high potential will also be informed by the surveyor's knowledge of bat ecology and preferred roost types (relative to the feature being assessed). The quality of the surrounding habitat for bats will also be considered.
Medium Roosting Potential	A feature / structure which would be considered ideal for use by bats were it not for one or more key factors which limit its potential. For example, an ideal feature in sub-optimal surrounding habitat may be considered to have moderate potential to support roosting bats.
Low Roosting Potential	A feature / structure considered unlikely to be of sufficient size, depth or construction etc. to offer a suitable roost site.
Negligible Roosting Potential	A feature / structure which lacks suitable features suitable for bats.

Table 2.3 Categorisation of potential to support roosting bats

[4] Collins, J. (Ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn) The Bat Conservation Trust, London.

[5] English Nature. 2004. Bat Mitigation Guidelines.

[6] Joint Nature Conservation Committee. 2004. Bat Workers Manual.

3. Results

3.1 Desk study

A search of Wiltshire Bat Group records highlighted 41 bat records of species including Greater horseshoe bat, Common pipistrelle, Soprano pipistrelle, Noctule, Serotine and Brown long-eared bat. Several records relate to grounded/rescued bats found in several premises in the Market Place, whilst 7 records relate to a Greater horseshoe roost in the Market Place.

The nearest records relate to a series of records of Brown long-eared bat and Whiskered bat, found grounded in nearby streets. There are no records of roosting bats in proximity to 33 – 36a New Park Street, SN10 1DZ.

These 41 records do however confirm the diverse assemblage of bats using the wider landscape, including Greater horseshoe bat, Lesser Horseshoe bat, Bechstein's and a series of common bat species including Daubenton's bat, Whiskered bat, Natterer's bat, Brown long-eared bat, Common pipistrelle and Soprano pipistrelle.

3.2 Site survey

The roof void in question is part of the roof void of 33 – 36a New Park Street, comprising a void 6 metres in length along the ridge, and 5-6 metres wide at the widest point/eaves.

The eastern pitch (overlooking Couch Street) is very poorly deteriorated, with no underfelt, rotten battens, and evidence of crumbling clay roofing tiles. Purlins and rafters are in poor condition, with evidence of wood worm. Many of the tiles have slipped and/or crumbled. Consequently, there is considerable evidence of the roof deteriorating, with a great deal of light and draught ingress, and evidence of rain ingress.

The western pitch (overlooking the rear car park) has, conversely, been re-roofed in recent times, perhaps 10 years ago or more. The underfelt is in good condition, the battens are in apparently good repair and the tiles are largely in a good state of repair, although there was evidence of light ingress at the eaves.

The void has access into the adjacent roof void (under the same ownership), via a small entrance, through which bats could fly, but no evidence of bats was noted associated with this feature, nor in the void beyond.

A thorough search for evidence of bats, or their field signs, was undertaken and **no evidence** was recorded.

Whilst there was opportunity and access for bats such as brown long-eared bat, to access cavities within the ridge line from the exterior and interior, no evidence of droppings, urine stains or evidence of roosting was noted. The probability of roosting bats being obscured from view was considered to be low/moderate because there were few obstructions to viewing this area (because it was possible to see into the ridge line along much of its length, due to missing under-felting, missing mortar and rotten battens). The void was moderately clothed in spider cobwebs, especially around the ridge line. This suggested that that bats were not routinely using this void because flight action of bats would

have prevented the establishment of the webs. Compounding this, the ridge line was missing the external mortar in many places, so was subject to water ingress and draughts. Although there may have been places where a bat could roost, it would subject to wind and rain.

No evidence of bats, old or new, was noted in the cobwebs (as might be expected if bats were roosting in the ridge line only), on the floor, on the flat, upper surfaces of storage boxes and beams; no evidence of bats or roosting was noted on any of the walls, including upon the redbrick chimney breast nor within crevices associated with the chimney (which are often favoured places for roosting bats).

It should be noted that there are a large number of buildings surrounding the site, in better states of repair, which offer better opportunities for roosting bats.

Table 1 Photographs



Interior of the roof void, looking south. Note the extensive cobwebbing on the roof timbers, and the absence of bat droppings in the accumulated dust on tops of beams.



Note the absence of bat droppings, or urine staining, or feeding signs on top of flat surfaces, despite the long-term accumulation of dust and debris.



Note the eastern pitch, lacking any under-felting or sarking boards. Battens are deteriorating, and tiles crumbling. The presence of roosting bats was considered unlikely because there were no suitable crevices or other features within or on the surface of the materials present.



Note the very rotten rafters at the northern end.



The full extent of the roof void, 6metres long, looking south from the inspection hatch entry point.



The exterior of the eastern pitch. Inspection with binoculars highlights the degraded nature of the pitch and tiles. Opportunities for roosting bats on the exterior are limited.

Of note, leadwork around the chimneys is loose as a result of the deterioration of the overall roof pitch. It was not possible to fully inspect this at the time of survey and it is recommended that a more detailed inspection is undertaken once the scaffolding is erected.



The exterior of the western pitch (to be retained with only minor tile repairs and re-pointing).

4. Conclusions & recommendations

4.1 Desk study

An assessment of over 20 years of Wiltshire Bat Group data, highlighted 41 records of bats including a small number of records relating to roosting bats, including roosting sites of Greater horseshoe, and a series of rescued/grounded bats from the area around the marketplace.

The wider landscape is known to support a high diversity of bat species, including Greater horseshoe bat, Lesser Horseshoe bat, Bechstein's and a series of common bat species including Daubenton's bat, Whiskered bat, Natterer's bat etc. However, there were no records specifically attributable to the building surveyed.

4.2 Roosting bats & breeding birds

Evidence of bats
No bats were found during the site survey. Furthermore, no evidence of roosting bats was recorded despite an extensive search.

Potential for roosting bats
Although features with the potential to support roosting bats were found, these were largely accessible for inspection, and were largely considered to offer low-moderate potential when considered in conjunction with the absence of bats or signs of bats that could be confirmed from the daytime inspection.

Evidence of night roosting or the presence of feeding perches was absent.

The building offers very low potential for use as a hibernation site, being very open to ingress by wind, rain and fluctuations in temperature.

Minor features that couldn't be fully assessed included the ridge and lead flashing around the chimneys and tiles along the eaves. These will be fully inspected once scaffolding is in place. It is recommended that these works are progress immediately in order to avoid issues with nesting birds accessing the eaves, and with the bat maternity season later in May.

As per Table 2.2 *Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape*, and in line with the Bat Survey Guidelines[7], the site is characterised as having low-moderate suitability for roosting bats, but adjacent properties may have higher suitability. The locality of the site offers poor connectivity to the wider landscape, although the canal corridor lies just 100m to the north.

Furthermore, using Table 2.3 *Categorisation of potential to support roosting bats,* the site is considered to offer Low-Moderate Roosting Potential for bats. This is based upon the opinion that the eastern roof pitch (which is to be replaced and repairs) offers few opportunities for roosting bats given

[7] Collins, J. (Ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) The Bat Conservation Trust, London.

its state of disrepair, whilst the western pitch offers some opportunities for roosting bats, e.g. along the eaves and raised tiles.

Summary - Potential for nesting birds

No birds were found nesting at the time of survey, and no evidence of nesting birds characteristic of buildings (e.g., barn owl, kestrel, tree sparrow, swallow, house martin, house sparrow, starling) was noted.

- no nests (current or old) were found in the roofing timbers of the building, for example, Swallow, Starling, Swift, or Wren. There is no evidence to suggest that these species use this structure at all.
- No evidence of barn owl or kestrel activity was observed, (such as droppings, pellets and nest material). There is no evidence to suggest that these species use this structure at all.

4.3 Recommendations

It is possible, but considered unlikely, that bats could occupy the building between the date of the survey in February 2023 and the commencement of works. The risk of this being the case increases with time so roofing works should be undertaken as soon as possible. No further bat surveys or bird surveys are recommended at this time, provided the following advice is followed:

- Roofing works must be undertaken (and completed) prior to the commencement of the maternity period, i.e., before late April 2023, to ensure no disturbance to bats which may be potentially roosting in adjacent properties and roof voids.

- A suitably licenced bat worker should inspect the roof again before works commence in order to confirm the continued absence of bats and nesting birds. Provided the assessment remains the same, the removal of ridge tiles, roofing tiles and any other feature with the potential to support roosting bats must be undertaken under supervision of the licenced bat ecologist, who should inspect all cavities and crevices exposed during the roof strip. Any bats found or signs of bats found would trigger the need for a works stoppage and a re-assessment of the site. It is likely that the works would need to be subject to further survey and European Protected Species Licensing at this point.

In the event that works are delayed beyond April 2023, the site should be re-surveyed, with at least one dusk or dawn survey included in the survey program.

4.4 Biodiversity enhancements

The following proposed features for roosting bats are to be installed following agreement with the ecologist, to ensure features are placed in optimal locations.

Enhancement for roosting bats will focus upon creating entry points into the void via access points within the ridge, focussing upon Brown long-eared bat, which is known to use such features and is present nearby. This will also provide opportunities for Common pipistrelle and Serotine bat.

Firstly, small holes will be cut in the under-felting in the ridge – this will permit bats entry from within the ridge cavity, into the roof void. Three holes will be cut along the 6metre long ridge line.

Secondly, when the ridge tiles are mortared into place on top of the upper-most courses of tiles, holes will be left in the bedding mortar, 30mm long, to permit bats entry into the ridge cavity. These holes will be roughly associated with the holes cut in the under felting below.

It is also recommended that 1 x Bat Access Tile is installed, for example, https://www.nhbs.com/bat-access-tile-set or https://www.nhbs.com/heritage-clay-bat-access-tiles (which ever matches the existing tiles most closely).

5. References

Anon. (2004). Bat Mitigation Guidelines. English Nature.

Anon. (2004) Bat Workers Manual. Joint Nature Conservation Committee

Anon. (2015). Bat Special Areas of Conservation (SAC) – Planning Guidance for Wiltshire. Accessed - http://www.wiltshire.gov.uk/bath_and_bradford_on_avon_september_2015_bat_sac_guidance.pdf

Collins, J. (Ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edn) The Bat Conservation Trust, London.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at https://britishbirds.co.uk/content/status-our-bird-populations.